LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (ORIGINAL) A radio terminal which intermittently receives beacons transmitted from a radio base station at regular intervals and beacons each having a delivery traffic indication map transmitted from the radio base station at intervals of certain beacon intervals, in which, having recognized that its packets are buffered in the radio base station by extracting information elements included in a received beacon, the radio terminal sends the radio base station a control packet to request delivery of the packets, thereby receiving the packets buffered in the radio base station, including:

a timer value changing section for dynamically changing one or more timer values according to the operation mode of each communication application running on the radio terminal.

2. (ORIGINAL) A radio terminal which intermittently receives beacons transmitted from a radio base station at regular intervals and beacons each having a delivery traffic indication map transmitted from the radio base station at intervals of certain beacon intervals, in which, having recognized that its packets are buffered in the radio base station by extracting information elements included in a received beacon, the radio terminal sends the radio base station a control packet to request delivery of the packets, thereby receiving the packets buffered in the radio base station, comprising:

a plurality of communication applications, one or more parameters being set individually for each of them;

a computing section for carrying out aggregative computations to obtain timer values based on the parameters set for two or more communication applications in execution among the plural communication applications; and

a setting section for setting the timer values obtained by the computing section.

3. (ORIGINAL) The radio terminal claimed in claim 1, wherein the timer value is an interval selected from divisors of the interval between the beacons each having the delivery traffic indication map within the range of the regular interval between beacons to the interval between beacons each including the delivery traffic indication map.

4. (ORIGINAL) The radio terminal claimed in claim 2, wherein the timer value is an interval selected from divisors of the interval between the beacons each having the delivery traffic indication map within the range of the regular interval between beacons to the interval between beacons each including the delivery traffic indication map.

5. (ORIGINAL) The radio terminal claimed in claim 1, wherein:

an inter frame space (IFS) timer value which forms a basis for detecting a change of a channel from the busy state to the idle state at the time of transmission and a random back off time range which is the range of standby time to wait a random period of time before transmission from when the channel goes into the idle state are used as the timer values; and

the IFS timer value and the random back off time range are changed according to the start of the operation of the communication application.

6. (ORIGINAL) The radio terminal claimed in claim 2, wherein:

an inter frame space (IFS) timer value which forms a basis for detecting a change of a channel from the busy state to the idle state at the time of transmission and a random back off time range which is the range of standby time to wait a random period of time before transmission from when the channel goes into the idle state are used as the timer values; and

the IFS timer value and the random back off time range are changed according to the start of the operation of the communication application.

7. (ORIGINAL) The radio terminal claimed in claim 2, wherein the computing section outputs the minimum value of the respective parameters set for two or more communication applications in execution, and the timer value is obtained based on the minimum value.

8. (ORIGINAL) The radio terminal claimed in claim 2, further comprising:

a battery charge detector for detecting the remaining amount of charge in a battery that supplies power necessary for the operation of the radio terminal;

a parameter limit memory for storing parameter limits set according to the proportions of remaining battery charge in advance; and

a comparator that fetches the parameter limits from the parameter limit memory based on the remaining amount of battery charge detected by the battery charge detector, compares the respective parameter values determined by the computing section with the parameter limits obtained from the parameter limit memory, and based on the result of the comparison, selects the determined parameter value or the parameter limit, and wherein:

the setting section sets the timer value obtained based on the value selected by the comparator.

9. (ORIGINAL) The radio terminal claimed in claim 3, further comprising:

a battery charge detector for detecting the remaining amount of charge in a battery that supplies power necessary for the operation of the radio terminal;

a parameter limit memory for storing parameter limits set according to the proportions of remaining battery charge in advance; and

a comparator that fetches the parameter limits from the parameter limit memory based on the remaining amount of battery charge detected by the battery charge detector, compares the respective parameter values determined by the computing section with the parameter limits obtained from the parameter limit memory, and based on the result of the comparison, selects the determined parameter value or the parameter limit, and wherein:

the setting section sets the timer value obtained based on the value selected by the comparator.

10. (ORIGINAL) The radio terminal claimed in claim 4, further comprising:

a battery charge detector for detecting the remaining amount of charge in a battery that supplies power necessary for the operation of the radio terminal;

a parameter limit memory for storing parameter limits set according to the proportions of remaining battery charge in advance; and

a comparator that fetches the parameter limits from the parameter limit memory based on the remaining amount of battery charge detected by the battery charge detector, compares the respective parameter values determined by the computing section with the parameter limits obtained from the parameter limit memory, and based on the result of the comparison, selects the determined parameter value or the parameter limit, and wherein:

the setting section sets the timer value obtained based on the value selected by the comparator.

11. (ORIGINAL) The radio terminal claimed in claim 5, further comprising:

a battery charge detector for detecting the remaining amount of charge in a battery that supplies power necessary for the operation of the radio terminal;

a parameter limit memory for storing parameter limits set according to the proportions of remaining battery charge in advance; and

a comparator that fetches the parameter limits from the parameter limit memory based on the remaining amount of battery charge detected by the battery charge detector, compares the respective parameter values determined by the computing section with the parameter limits obtained from the parameter limit memory, and based on the result of the comparison, selects the determined parameter value or the parameter limit, and wherein:

the setting section sets the timer value obtained based on the value selected by the comparator.

12. (ORIGINAL) The radio terminal claimed in claim 6, further comprising:

a battery charge detector for detecting the remaining amount of charge in a battery that supplies power necessary for the operation of the radio terminal;

a parameter limit memory for storing parameter limits set according to the proportions of remaining battery charge in advance; and

a comparator that fetches the parameter limits from the parameter limit memory based on the remaining amount of battery charge detected by the battery charge detector, compares the

respective parameter values determined by the computing section with the parameter limits obtained from the parameter limit memory, and based on the result of the comparison, selects the determined parameter value or the parameter limit, and wherein:

the setting section sets the timer value obtained based on the value selected by the comparator.

13. (ORIGINAL) The radio terminal claimed in claim 7, further comprising:

a battery charge detector for detecting the remaining amount of charge in a battery that supplies power necessary for the operation of the radio terminal;

a parameter limit memory for storing parameter limits set according to the proportions of remaining battery charge in advance; and

a comparator that fetches the parameter limits from the parameter limit memory based on the remaining amount of battery charge detected by the battery charge detector, compares the respective parameter values determined by the computing section with the parameter limits obtained from the parameter limit memory, and based on the result of the comparison, selects the determined parameter value or the parameter limit, and wherein:

the setting section sets the timer value obtained based on the value selected by the comparator.

14. (ORIGINAL) The radio terminal claimed in claim 8, wherein the comparator selects the determined parameter value when the determined parameter value is equal to or larger than the parameter limit, and selects the parameter limit when the determined parameter value is smaller than the parameter limit.

15. (ORIGINAL) The radio terminal claimed in claim 9, wherein the comparator selects the determined parameter value when the determined parameter value is equal to or larger than the parameter limit, and selects the parameter limit when the determined parameter value is smaller than the parameter limit.

16. (ORIGINAL) The radio terminal claimed in claim 10, wherein the comparator selects the determined parameter value when the determined parameter value is equal to or larger than the parameter limit, and selects the parameter limit when the determined parameter value is smaller than the parameter limit.

17. (ORIGINAL) The radio terminal claimed in claim 11, wherein the comparator selects the determined parameter value when the determined parameter value is equal to or larger than the parameter limit, and selects the parameter limit when the determined parameter value is smaller than the parameter limit.

18. (ORIGINAL) The radio terminal claimed in claim 12, wherein the comparator selects the determined parameter value when the determined parameter value is equal to or larger than the parameter limit, and selects the parameter limit when the determined parameter value is smaller than the parameter limit.

19. (ORIGINAL) The radio terminal claimed in claim 13, wherein the comparator selects the determined parameter value when the determined parameter value is equal to or larger than the parameter limit, and selects the parameter limit when the determined parameter value is smaller than the parameter limit

20. (ORIGINAL) The radio terminal claimed in claim 14, the parameter limit value stored in the parameter limit memory is set based on remaining battery charge, and when remaining battery charge has reduced to less than a certain value, the intermittent receiving interval becomes longer than that when remaining battery charge is more than the certain value.

21.(ORIGINAL) The radio terminal claimed in claim 15, the parameter limit value stored in the parameter limit memory is set based on remaining battery charge, and when remaining battery charge has reduced to less than a certain value, the intermittent receiving interval becomes longer than that when remaining battery charge is more than the certain value.

22. (ORIGINAL) The radio terminal claimed in claim 16, the parameter limit value stored in the parameter limit memory is set based on remaining battery charge, and when remaining battery charge has reduced to less than a certain value, the intermittent receiving interval becomes longer than that when remaining battery charge is more than the certain value.

23. (ORIGINAL) The radio terminal claimed in claim 17, the parameter limit value stored in the parameter limit memory is set based on remaining battery charge, and when remaining battery charge has reduced to less than a certain value, the intermittent receiving interval becomes longer than that when remaining battery charge is more than the certain value.

24. (ORIGINAL) The radio terminal claimed in claim 18, the parameter limit value stored in the parameter limit memory is set based on remaining battery charge, and when remaining battery charge has reduced to less than a certain value, the intermittent receiving interval becomes longer than that when remaining battery charge is more than the certain value.

25. (ORIGINAL) The radio terminal claimed in claim 19, the parameter limit value stored in the parameter limit memory is set based on remaining battery charge, and when remaining battery charge has reduced to less than a certain value, the intermittent receiving interval becomes longer than that when remaining battery charge is more than the certain value.

26. (ORIGINAL) The radio terminal claimed in claim 14, the parameter limit value stored in the parameter limit memory is set based on remaining battery charge, and when remaining battery charge has reduced to less than a certain value, the inter frame space (IFS) timer value becomes larger and the random back off time range becomes narrower than those when remaining battery charge is more than the certain value.

27. (ORIGINAL) The radio terminal claimed in claim 15, the parameter limit value stored in the parameter limit memory is set based on remaining battery charge, and when remaining battery charge has reduced to less than a certain value, the inter frame space (IFS) timer value

becomes larger and the random back off time range becomes narrower than those when remaining battery charge is more than the certain value.

28. (ORIGINAL) The radio terminal claimed in claim 16, the parameter limit value stored in the parameter limit memory is set based on remaining battery charge, and when remaining battery charge has reduced to less than a certain value, the inter frame space (IFS) timer value becomes larger and the random back off time range becomes narrower than those when remaining battery charge is more than the certain value.

29. (ORIGINAL) The radio terminal claimed in claim 17, the parameter limit value stored in the parameter limit memory is set based on remaining battery charge, and when remaining battery charge has reduced to less than a certain value, the inter frame space (IFS) timer value becomes larger and the random back off time range becomes narrower than those when remaining battery charge is more than the certain value.

30. (ORIGINAL) The radio terminal claimed in claim 18, the parameter limit value stored in the parameter limit memory is set based on remaining battery charge, and when remaining battery charge has reduced to less than a certain value, the inter frame space (IFS) timer value becomes larger and the random back off time range becomes narrower than those when remaining battery charge is more than the certain value.

31. (ORIGINAL) The radio terminal claimed in claim 19, the parameter limit value stored in the parameter limit memory is set based on remaining battery charge, and when remaining battery charge has reduced to less than a certain value, the inter frame space (IFS) timer value becomes larger and the random back off time range becomes narrower than those when remaining battery charge is more than the certain value.

32. (CURRENTLY AMENDED) A radio communication system using the radio terminal claimed in ~~claims 1 to 9~~ claim 1, comprising:

a radio base station which intermittently transmits beacons at regular intervals and beacons each having a delivery traffic indication map at intervals of certain beacon intervals, and once buffers packets to the radio base stations operating in power-save mode after the completion of negotiations in a memory; and

one or more radio terminals each of which intermittently receives beacons transmitted from a radio base station, and, when recognizing that its packets are buffered in the radio base station by extracting information elements included in a received beacon, sends the radio base station a control packet to request delivery of the packets, thereby receiving the packets buffered in the memory of the radio base station.

33. (NEW) A radio communication system using the radio terminal claimed in claim 2, comprising:

a radio base station which intermittently transmits beacons at regular intervals and beacons each having a delivery traffic indication map at intervals of certain beacon intervals, and once buffers packets to the radio base stations operating in power-save mode after the completion of negotiations in a memory; and

one or more radio terminals each of which intermittently receives beacons transmitted from a radio base station, and, when recognizing that its packets are buffered in the radio base station by extracting information elements included in a received beacon, sends the radio base station a control packet to request delivery of the packets, thereby receiving the packets buffered in the memory of the radio base station.

34. (NEW) A radio communication system using the radio terminal claimed in claim 3, comprising:

a radio base station which intermittently transmits beacons at regular intervals and beacons each having a delivery traffic indication map at intervals of certain beacon intervals, and once buffers packets to the radio base stations operating in power-save mode after the completion of negotiations in a memory; and

one or more radio terminals each of which intermittently receives beacons transmitted from a radio base station, and, when recognizing that its packets are buffered in the radio base station

by extracting information elements included in a received beacon, sends the radio base station a control packet to request delivery of the packets, thereby receiving the packets buffered in the memory of the radio base station.

35. (NEW) A radio communication system using the radio terminal claimed in claim 4, comprising:

a radio base station which intermittently transmits beacons at regular intervals and beacons each having a delivery traffic indication map at intervals of certain beacon intervals, and once buffers packets to the radio base stations operating in power-save mode after the completion of negotiations in a memory; and

one or more radio terminals each of which intermittently receives beacons transmitted from a radio base station, and, when recognizing that its packets are buffered in the radio base station by extracting information elements included in a received beacon, sends the radio base station a control packet to request delivery of the packets, thereby receiving the packets buffered in the memory of the radio base station.

36. (NEW) A radio communication system using the radio terminal claimed in claim 5, comprising:

a radio base station which intermittently transmits beacons at regular intervals and beacons each having a delivery traffic indication map at intervals of certain beacon intervals, and once buffers packets to the radio base stations operating in power-save mode after the completion of negotiations in a memory; and

one or more radio terminals each of which intermittently receives beacons transmitted from a radio base station, and, when recognizing that its packets are buffered in the radio base station by extracting information elements included in a received beacon, sends the radio base station a control packet to request delivery of the packets, thereby receiving the packets buffered in the memory of the radio base station.

37. (NEW) A radio communication system using the radio terminal claimed in claim 6, comprising:

a radio base station which intermittently transmits beacons at regular intervals and beacons each having a delivery traffic indication map at intervals of certain beacon intervals, and once buffers packets to the radio base stations operating in power-save mode after the completion of negotiations in a memory; and

one or more radio terminals each of which intermittently receives beacons transmitted from a radio base station, and, when recognizing that its packets are buffered in the radio base station by extracting information elements included in a received beacon, sends the radio base station a control packet to request delivery of the packets, thereby receiving the packets buffered in the memory of the radio base station.

38. (NEW) A radio communication system using the radio terminal claimed in claim 7, comprising:

a radio base station which intermittently transmits beacons at regular intervals and beacons each having a delivery traffic indication map at intervals of certain beacon intervals, and once buffers packets to the radio base stations operating in power-save mode after the completion of negotiations in a memory; and

one or more radio terminals each of which intermittently receives beacons transmitted from a radio base station, and, when recognizing that its packets are buffered in the radio base station by extracting information elements included in a received beacon, sends the radio base station a control packet to request delivery of the packets, thereby receiving the packets buffered in the memory of the radio base station.

39. (NEW) A radio communication system using the radio terminal claimed in claim 8, comprising:

a radio base station which intermittently transmits beacons at regular intervals and beacons each having a delivery traffic indication map at intervals of certain beacon intervals, and once buffers packets to the radio base stations operating in power-save mode after the completion of negotiations in a memory; and

one or more radio terminals each of which intermittently receives beacons transmitted from a radio base station, and, when recognizing that its packets are buffered in the radio base station

by extracting information elements included in a received beacon, sends the radio base station a control packet to request delivery of the packets, thereby receiving the packets buffered in the memory of the radio base station.

40. (NEW) A radio communication system using the radio terminal claimed in claim 9, comprising:

a radio base station which intermittently transmits beacons at regular intervals and beacons each having a delivery traffic indication map at intervals of certain beacon intervals, and once buffers packets to the radio base stations operating in power-save mode after the completion of negotiations in a memory; and

one or more radio terminals each of which intermittently receives beacons transmitted from a radio base station, and, when recognizing that its packets are buffered in the radio base station by extracting information elements included in a received beacon, sends the radio base station a control packet to request delivery of the packets, thereby receiving the packets buffered in the memory of the radio base station.